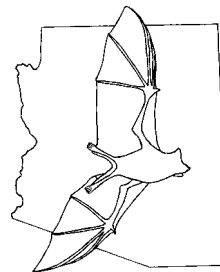




Arizona Bat Conservation Partnership Workshop Proceedings

April 7-8, 2003
Phoenix Zoo

Hosted by:
The Arizona Game and Fish Department
Arizona Bat Conservation Partnership





Arizona Bat Conservation Partnership
Workshop, April 7-8, 2003
Phoenix Zoo



Agenda

Day 1, April 7, 2003

- 12:40 pm** Registration
- 1:00 pm** Welcome, Introductions – Katy Hinman, AGFD Bat Project Coordinator
- 1:10 pm** Opening Remarks – Duane Shroufe, AGFD Director
- 1:40 pm** Planning for Bats – NABCP – Dan Taylor, Bat Conservation International
- 1:55 pm** Planning for Bats - The Texas Experience – Meg Goodman, Texas Parks and Wildlife / Bat Conservation International
- 2:10 pm** Planning for Bats – A Regional Perspective – Lyle Lewis, USFWS / Chair, Western Bat Working Group
- 2:40 pm** Break
- 3:00 pm** Preparing and Implementing a Strategic Plan – Lessons from Partners in Flight – Carol Beardmore, Sonoran Joint Venture Coordinator (former Partners in Flight Regional Coordinator)
- 3:30 pm** Funding Presentations
State Wildlife Grants – Bill Van Pelt, AGFD
Heritage Fund – Robyn Beck, AGFD
Partners for Wildlife – Marty Jakle, PFW
- 4:30 pm** Strategic Planning for Wildlife – Terry Johnson, AGFD Nongame Branch Chief
- 4:55 pm** Overview of tomorrow's agenda, Adjourn – Katy Hinman



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Day 2, April 8, 2003

- 8:00 am** Welcome, Agenda, Ground Rules
- 8:10 am** An Introduction to the Arizona Strategic Bat Conservation Plan – Katy Hinman and Tim Snow, AGFD Region 5 Nongame Specialist
- 8:45 am** Breakout Groups: Prioritizing Implementation Actions
Research
Management
Inventory and Monitoring
Education
- 9:45 am** Break
- 10:00 am** Breakout Groups – continued
- 11:30 noon** Lunch
- 12:30 pm** Breakout Group Presentations / Discussion
Research
Management
Inventory and Monitoring
Education
- 2:00 pm** Break
- 2:15 pm** Breakout Group Presentations – continued and concluded
- 4:00 pm** Funding Presentations
Landowner Incentive Program – Josh Avey, AGFD
Wildlife Habitat Incentive Program – Steve Smarik, NRCS
- 4:40 pm** Closing – Now what? – Katy Hinman
- 5:00 pm** Adjourn

OPENING REMARKS

Duane Shroufe, the Director of the Arizona Game and Fish Department, welcomed participants to the workshop. He encouraged participants to take an active role in the conservation and management of bat species and congratulated them on the progress that has already been made. He welcomed the spirit of cooperation and collaboration evident in the participation of people from so many different organizations and agencies and challenged these organizations to continue these collaborative efforts and to follow up on the priorities and actions identified through the Arizona Bat Conservation Strategic Plan and this workshop.

WORKSHOP OBJECTIVES

The objectives of this workshop are to introduce participants to the Arizona Bat Conservation Strategic Plan; to discuss the use of this strategic plan to address and direct management and conservation activities for bats statewide; to identify and prioritize projects and actions to address the goals and objectives outlined in the strategic plan; to identify possible funding avenues for these projects and actions; and to foster collaboration and cooperation between diverse agencies, groups, and individuals toward bat conservation.

Specifically we wish to begin to prioritize activities for next two years, identify people or groups to carry out these activities, and if possible, identify likely funding sources. In the future, we plan to hold similar workshops every one to two years to re-evaluate priorities list, to review and revise the strategic plan every five years, and to continue to build collaborations between individuals and agencies.

PRESENTATIONS

THE ARIZONA BAT CONSERVATION STRATEGIC PLAN

Katy Hinman, Bat Project Coordinator for the Arizona Game and Fish Department (AGFD), and Tim Snow, Regional Nongame Specialist for AGFD and former Bat Project Coordinator, introduced the Arizona Bat Conservation Strategic Plan. The plan was developed in response to the North American Bat Conservation Partnership (NABCP) directive to identify important resources for and threats to Arizona bat species; set goals and objectives for research, management, inventory and monitoring, and education; and to serve as a template for other states. It was developed collaboratively by the AGFD, the Arizona Bat Resource Group (ABRG), and prospective signatories, including the United States Fish and Wildlife Service, United States Forest Service, Bureau of Land Management, Arizona State Parks Department, University of Arizona, Arizona State University, and Northern Arizona University. The original plan followed the blueprint of the NABCP strategic plan, outlining only goals and objectives for bat conservation and management, but the ABRG decided that to be maximally effective, the plan should also include background information on species, resources, and habitats of concern.

The organization of the plan starts with an introduction and natural history section, which includes information on the ecological and economic importance of bats, bat conservation in Arizona, the AGFD Bat Management Project, and the ABRG. This section is followed by species descriptions of all 28 bat species in Arizona, including their conservation status, physical description, information on distribution, habitat, biology, and population trends, and specific management factors that effect each species. Each description also includes an Arizona range map.

The plan also includes descriptions of those resources most important to bats in Arizona, including roosts, foraging habitat, water availability, and migratory corridors. In addition, there are four sections delineating specific goals and objectives for Arizona bats in four categories: research, inventory and monitoring, management, and education. Finally, there are descriptions of the different habitat types in Arizona: forests and woodlands, sky islands, riparian / wetland, grasslands, deserts and shrublands, agriculture, and urban habitats. These habitat descriptions include lists of bat species most commonly found in these habitats, important resources available to bats in these habitats, threats to bats in these habitats, and specific management, research, and inventory and monitoring goals for these habitats.

NORTH AMERICAN BAT CONSERVATION PARTNERSHIP

Dan Taylor, from Bat Conservation International, gave a presentation on the North American Bat Conservation Partnership (NABCP). This is an alliance of bat working groups, bat researchers, non-governmental organizations, and state and federal agencies from Mexico, Canada, and the United States. It was started to facilitate effective communication among partners, to develop collaborative national conservation priorities, to provide a unified voice to influence national policy, and to enhance resource allocation.

In response to drastic bat declines in the 1950's and 1960's, the American Association for the Advancement of Science convened a task force at their 1971 symposium to draft recommendations for the conservation of bats. Rabies scares and other factors impeded the implementation of the task force's recommendations. However, two decades of increased interest and continuing conservation issues necessitated (inter) national coordination. Two years of planning with the National Fish and Wildlife Federation, federal and state agencies, and Bat Conservation International culminated in a 1999 meeting in Austin, Texas, to create a unified North American approach to bat conservation, which led to the development of the NABCP.

The NABCP was modeled on such organizations as Partners in Flight and Partners in Amphibian and Reptile Conservation and was developed with assistance from the International Association of Fish and Wildlife Agencies, etc. Committees were appointed to develop a Mission Statement, Charter, Strategic Plan, and Communications Plan. Along with an Executive Committee and a Steering Committee, three standing subcommittees were developed to address needs in Research and Monitoring, Education and Outreach, and Management. As part of its initial work, the NABCP developed a strategic plan to help direct efforts in bat conservation. The scope of this plan is continent-wide, and it is organized to delineate goals and priority actions in the areas of Research and Monitoring, Education, and Management. Priorities are intended to be set within a goal or area by state and local level managers who can determine the applicability of national goals and priorities to their situations and from there set priorities for local level actions.

The NABCP began a Conservation Fund Grant Program in 1998. Proposals are peer-reviewed by outside researchers guided by the priorities delineated in the strategic plan. To date, the NABCP has funded 87 of 153 proposals received in the US, Mexico, and Canada, providing funding for federal and state agencies, universities, private organizations, consultants, and industry. A total of \$290,595.00 has been dispersed, with an additional \$2,630,385 in matching funds, making a total of almost \$3 million going to fund priority research, management, and education projects.

The NABCP has also constructed a searchable database on the BCI website with over 10,000 bat-related papers, books, manuals, and species distribution maps. As well the subcommittees continue to work on projects including a banding manual (Research and Monitoring subcommittee), a public health position statement (Education and Outreach subcommittee), and a mine survey and gating protocol (Management subcommittee). Future efforts will include encouraging prioritization of regional and local level conservation actions to facilitate project funding and efficiency. The future success of the NABCP will depend on the dedication of individuals and organizations, dedicated resources, increased participation, partnerships, and shared ownership.

THE TEXAS EXPERIENCE

Meg Goodman, the Texas state bat biologist, updated us on the development and modification of the Texas Bat Action Plan. Texas has high bat diversity, with one federally listed and three state listed species. It also is home to many important maternity colonies of Mexican free-tailed bats. Unlike Arizona, Texas is over 90% privately owned. Currently there is no Texas bat working group or coordinated effort for statewide bat conservation. However, in 2000, the previous state bat coordinator developed a working draft of the Texas Bat Action Plan. This was developed at a grassroots level with many partners: Texas Parks and Wildlife Department (TPWD), Bat Conservation International (BCI), United States Fish and Wildlife Service, United States Forest Service (USFS), Texas Forest Service, Texas Department of Transportation, The Nature Conservancy (TNC), United States Army Corps of Engineers, Texas Railroad Commission, Texas Wildlife Services, National Guard, National Park Service, Natural Resources Conservation Service (NRCS), Health Department, Department of Defense, universities, private corporations, and private landowners.

Implementation of the Texas Bat Action Plan has been slowed because the Texas bat coordinator position was vacant for one year. Therefore, the Texas bat plan is still a work in progress and has not been finalized yet. Goodman, the current bat coordinator, began implementation efforts in March 2002 and is currently in the process of reconnecting with partners and setting priorities. Many things have already been accomplished or are in the process.

Some of the main goals identified in the current plan are as follows:

Research and Monitoring

- *Goal* – Identify species requirements and limiting factors
Priority – Implement the *Leptonycteris nivalis* recovery plan
Partners – BCI, TPWD, National Park Service, private landowners
- *Goal* – Encourage international cooperation and incorporate shared species into broader wildlife programs for research, inventory, monitoring and habitat assessments
Partners – BCI, TPWD, CONANP (National Park System of Mexico)

Education

- *Goal* – Develop and distribute educational materials to reach especially important audiences
Partners – BCI, TPWD, NRCS, private landowners
- *Goal* – Develop and distribute educational materials to reach especially important audiences
Priority – Develop bat educational materials for teachers and environmental educators
Partners – TPWD, BCI
- *Goal* – Foster collaboration with individuals, organizations, and agencies that can help
Priority – Develop and implement public participation and education materials to empower citizens to assist with outreach and education efforts, such as bat walks, lectures, school presentations, and other volunteer opportunities.
Partners – TPWD, BCI
- *Goal* – Develop and distribute educational materials to reach especially important audiences
Priority – Develop and lead education workshops for biologists, researchers and other groups
Partners – TPWD, BCI, TNC

- *Goal* – Initiate broad, continent-wide education campaigns, and establish linkages to exchange information and foster international collaboration
Priority – Translate educational materials into Spanish and distribute them in appropriate communities in Mexico and the U.S.
Partners – BCI, PCMM (Partnership for the Conservation of Migratory Bats)

Management

- *Goal* – Develop management standards and guidelines for bats, including them in existing management plans for other wildlife and associated habitat
Priority – same as goal
Partners – TPWD
- *Goal* – Identify, protect, and enhance key roosting, feeding and drinking resources for bats. Reestablish bat populations to the extent necessary.
Priority – Identify top bat caves in Texas and update contact information.
Partners – BCI, TPWD, Texas Speleological Society, private landowners
- *Goal* – Identify, protect, and enhance key roosting, feeding, and drinking resources for bats. Reestablish bat populations to extent necessary.
Priority – Establish artificial roosts in area where the loss of natural roosts now limits population recovery.
Partners – TPWD, BCI, USFS, Temple Inland Forest Products (potential)
- *Goal* – Incorporate bat conservation language into existing statutes for wildlife protection.
Priority – Work with legislators to establish domestic policies for bats.
Partners – TPWD, BCI, Sierra Club, State legislature

Work on the Texas Bat Action Plan is ongoing, as are efforts to revive the Texas Bat Working Group.

A REGIONAL PERSPECTIVE

Lyle Lewis, the chair of the Western Bat Working Group (WBWG), spoke about regional efforts for bat conservation and management. The WBWG was established in 1996 and includes people from 20 western states and Canadian provinces. It was originally established during the effort to develop a range-wide conservation strategy for the Townsend's big-eared bat. Since that time, it has expanded to incorporate efforts on behalf of all bat species. The goals of the WBWG are to facilitate communication among interested parties and reduce risks of species decline or extinction; to provide a mechanism by which current information regarding bat ecology, distribution, and research techniques can be readily accessed; and to develop a forum in which conservation strategies can be discussed, technical assistance provided, and education programs encouraged. Lewis emphasized the dependence of these efforts on active participation in both research and conservation efforts.

Currently, there are several states working on strategic plans such as Arizona's. Nevada and Texas have working drafts, while California, Colorado, and South Dakota are in the development process. Lewis cited many difficulties in getting a plan from a draft to a final version, including the difficulty of melding financial, political, and collaborative efforts and recognizing the limitations of the plan in terms of "enforcement." Support at high levels is critical to the success of the plan.

Lewis cautioned the workshop participants to recognize our limitations and to keep sight of the central purpose of this planning and implementation process, which is to conserve bat species and habitat. He discussed mines on public lands as an example where conflicting interests may interfere with conservation and management. On public lands, bat protection (and protection of wildlife in general) must be weighed against safety consideration. As well, there is frequently little time for surveys. Ideally, surveys should be carried out over all four seasons at a minimum. Different roost types (maternity, hibernacula, bachelor, transitory, etc.) may be used at different times. As well, we should ideally survey for the potential that mines have as roost sites for the future. However, due to human safety issues and other concerns, we may not be able to carry out all these surveys. We must therefore prioritize sites and roosts and develop a protocol for inventories and surveys.

Since participation in the activities suggested in the plan is voluntary, development of protocols and specific guidelines, as well as alternatives to suggested activities, will widen the ability of people and organizations to apply the plan in their particular circumstances. Lewis also emphasized the importance of incorporating bat conservation and management guidelines into landscape-wide management plans. He encouraged participants to collaborate on ways to include bats in management decisions throughout the state.

LESSONS FROM PARTNERS IN FLIGHT

Carol Beardmore, the Sonoran Joint Venture Coordinator and former Partners in Flight (PIF) Regional Coordinator, gave participants background on PIF and on their efforts with strategic planning. She has been involved with PIF since 1991 and on staff since 1996 and also has experience with bats, having been associated with Bat Conservation International and been the Fish and Wildlife lead for bats.

Identification of strengths and weaknesses has been key to the strategic planning process. PIF found that they were good at science, planning, and establishing networks, but had trouble with finding money and time for implementation, changing policy, and delivering conservation. Therefore, they have worked on developing partnerships with groups that are better at these things. Together with other organizations and planning groups, they have formed the North American Bird Conservation Initiative (NABCI). This provides a national framework that increases the stature of bird conservation, hopefully increases funding, and establishes a common ground for coordination efforts.

Carol suggested some lessons that could be learned from the PIF experience. One was to establish an implementation schedule for the strategic plan. Included in this effort is identifying priorities and criteria for establishing these priorities. As well, she strongly urged the continuation of the state working group efforts. A small pot of working money that can provide startup funding for projects will also increase implementation abilities. She also suggested doing a flagship project to draw attention to efforts and serve as a rallying point for future work.

STRATEGIC PLANNING FOR WILDLIFE

Terry Johnson, Nongame Branch Chief for the Arizona Game and Fish Department, spoke about the importance of planning both in the context of wildlife in general and for bats in particular. Johnson in particular emphasized the importance of thinking strategically overall, rather than focusing on "strategic planning" per se.

Johnson spoke about need to institutionalize our efforts to conserve bats and to realize that the programs we are involved in are bigger than one person or one agency. With the Arizona Bat Conservation Strategic Plan, we have the opportunity to craft a true partnership for on-the-ground conservation, rather than a group that will get bogged down in meetings, conferences, etc. However, the extent to which this Arizona Bat Conservation Partnership will be successful is the extent to which the plan is used to articulate a comprehensive conservation vision. In this effort, we must allow individual agencies to select elements of the plan that they can fund and support, in essence starting with small visions that will help us achieve our overall goal. By identifying key projects through the plan and through this workshop, we will help funding efforts for these projects.

Johnson also emphasized the need for partnerships outside of the traditional "bat groups." He suggested working on ways to include bats in other conservation programs, for instance migratory bird initiatives. This will help us to achieve more success faster than building a new structure from the ground up. Shared efforts (and shared credit) will also bring more recognition to our efforts, increasing our ability to achieve flagship projects.

As a provision of the State Wildlife Grant program, states that receive funding are required to develop State Wildlife Plans over the next ten years. By making sure that bats are included in these wildlife plans, we can help insure dedicated funding and interest for bat conservation in the future.

FUNDING PRESENTATIONS

STATE WILDLIFE GRANTS

Bill Van Pelt, Nongame Mammals Program Manager for the Arizona Game and Fish Department, spoke about the State Wildlife Grant (SWG) program. This program was built on a number of other federal funding efforts, including Teaming for Wildlife, an effort to create permanent funding for neglected species, specifically nongame species, the Conservation and Restoration Act (not passed), and the Wildlife Conservation and Restoration Program, a one-time funding opportunity. State Wildlife Grants are intended to provide money for wildlife and habitats, particularly targeted to species of greatest conservation need. This money is appropriate by the federal government and distributed to the states.

Projects funded by SWG can involve planning or implementation. The match ratios required for these two components are a 3:1 match for planning projects and a 1:1 match for implementation projects. Although this money is allocated specifically to the State Wildlife Agencies, it funds projects that involve many agencies and individuals. The development of the Arizona Bat Conservation Strategic Plan and this workshop, for instance, are being funded with SWG money. As well, agencies may use SWG money to help provide money for outside groups and projects. One proposed use for this money is to establish a grant program whereby the Arizona Game and Fish Department could give grants to other agencies, groups, or individuals to carry out bat conservation and management projects throughout the state.

Because this money is vital to the efforts begun here at the Arizona Bat Conservation Partnership Workshop, Van Pelt emphasized the importance of grassroots advocacy by people outside AGFD for the continuation of these appropriations.

HERITAGE FUND

Robyn Beck, the Heritage Grant Coordinator for the Arizona Game and Fish Department, introduced participants to the Heritage Grant Program. In 1990, Arizona voters approved the Heritage Initiative to set aside \$20 million in Arizona Lottery revenues each year for parks, trails, and natural areas, historic preservation, and a full range of wildlife conservation activities. Heritage Grants are awarded by the AGFD to eligible applicants including the federal government or any federal department or agency; Indian tribes; all departments, agencies, boards and commissions of the state of Arizona; counties; school districts; cities; towns; all municipal corporations; and any other political subdivisions of the state of Arizona. People or organizations outside this list of eligible applicants may be sponsored by an eligible group.

The following sub-programs comprise the Heritage Fund Grant Program:

IIPAM (Identification, Inventory, Acquisition, Protection and Management of Sensitive Habitats)

Objective: To preserve and enhance Arizona's natural biological diversity.

Guidelines: Species, work and location for the species must be on the IIPAM Sensitive Elements List (sent out with grant manual).

Environmental Education

Objectives: To enhance and / or develop conservation / environmental education programs for use in Arizona schools; to develop and / or implement projects that increase awareness and understanding of wildlife issues and that support the mission and role of the AGFD's wildlife management efforts.

Guidelines: Projects should use Arizona wildlife. They should be integrated across the curriculum and grade levels. Wildlife issues should be presented in a balanced and fair manner. Proposals should request a minimum of \$1000 and a maximum of \$10,000.

Schoolyard Habitat

Objectives: To develop and maintain wildlife habitat projects on school sites or adjacent areas that allow wildlife education activities and encourage use by urban wildlife species.

Guidelines: Projects should encourage wildlife education on school sites through the development or enhancement of urban wildlife habitats. Proposals should request a minimum of \$1,000 and a maximum of \$10,000.

Urban Wildlife

Objectives: To conserve, enhance and establish wildlife habitats and populations in harmony with urban environments. To increase public awareness of and support for urban wildlife resources.

Guidelines: A project must be within five miles of an incorporated city or town or Sun City, Sun City West, Green Valley or Flowing Wells.

Public Access

Objective: To ensure that publicly held lands in Arizona are available to the general public for wildlife-oriented recreational use.

Guidelines: Funds will be available to increase, maintain or reduce public access as needed, for recreational use in cooperation with Federal land managers, local and State governments, private landowners and public users.

Application deadline: November 28, 2003. http://www.gf.state.az.us/w_c/heritage_program.html

PARTNERS FOR FISH AND WILDLIFE

Marty Jakle, the Arizona State Coordinator of the Partners for Fish and Wildlife (PFW) Program, spoke about funding opportunities through PFW. PFW is part of the Ecological Services branch of the US Fish and Wildlife Service. The program focus is on threatened and endangered species, especially waterfowl and shorebirds and migratory birds. So far they have not sponsored any bat projects, but they would like to. Prospective sites and partners for projects include private & tribal lands; organizations, corporations, and institutions; local government; and state and federal agencies. Projects cannot be carried out on federal lands, but may be carried out on state or private lands.

The major goals of the PFW program are to protect and restore habitat, to restore biological diversity, to promote partnerships, and to provide technical assistance. Grants are available for up to \$25,000 per project and require a 10-year minimum commitment. These funds are to be used for on-the-ground projects. Previous projects have included fencing riparian habitats, planting native vegetation, closing roads, and environmental education.

Projects are selected based on the following criteria:

- Benefits federally listed T&E species
- Benefits a National Wildlife Refuge
- Fosters partnerships & good working relationships
- Overall high fish and wildlife value
- High likelihood of project success
- Habitat: 1) Protection, 2) Restoration, 3) Creation
- Cost/acre & length of Partners agreement
- Prevention of habitat fragmentation
- Environmental education

Jakle also discussed the Safe Harbor Policy. Under this policy, a landowner is issued an Enhancement of Survival Permit under Section 10(a)(1)(A) of the Endangered Species Act. The policy encourages private landowners to improve habitat for listed species by authorizing incidental take above baseline. Net conservation benefits for the listed species must be achieved before the permit is issued.

The two-page funding application may be submitted anytime during the year. Projects are selected for funding in two rounds by the State Partners Committee (in November and February).

<http://partners.fws.gov>
<http://arizonaes.fws.gov/>

LANDOWNER INCENTIVE PROGRAM

Josh Avey, from the Arizona Game and Fish Department (AGFD), spoke about conservation and funding opportunities through the Landowner Incentive Program (LIP). This program is supported through funds allocated by Congress to the United States Fish and Wildlife Service (USFWS). The funds are largely restricted to on-the-ground activities that enhance habitats for, or provide other conservation benefits, for “at risk” species on private lands. In this program, “species at risk” is defined as “any Federally listed, proposed, or candidate animal or plant species or other species of concern as determined and documented by a State.” Each state determines its own list of “species at risk.”

LIP is a grant program establishing a partnership among federal / state governments and private landowners. At the federal level administrative oversight is provided by the USFWS. USFWS awards grants to states for programs that enhance, protect, and / or restore habitats that benefit federally listed species, proposed or candidate species, or other “species at risk” on private lands. AGFD’s role in the implementation of LIP is to provide technical and financial assistance to private landowners for projects that meet the criteria. The private landowner role is to provide the habitat necessary to accomplish the objectives of LIP. Additionally, USFWS requires a 25% non-federal cash match or in-kind contribution to be eligible for these funds.

Technical and financial assistance will be provided to private landowners, resulting in projects that benefit at-risk species of wildlife by abating habitat-based population constraints. The program will thus contribute to reducing imperilment of such species, enhancing recovery of federally-listed or proposed threatened or endangered species and precluding the need to propose or list other species federally as endangered or threatened.

Other species will also derive benefits from the program, as ecosystems are restored through habitat improvement. Wildlife populations will benefit from restoration of natural balances, and the public will benefit from decreased costs of species conservation programs and increased opportunities to enjoy restored wildlife populations vicariously or through direct recreational pursuits.

http://www.gf.state.az.us/outdoor_recreation/landowner_respect.html

WILDLIFE HABITAT INCENTIVES PROGRAM

Steve Smarik from the Natural Resources Conservation Service (NRCS) introduced workshop participants to the Wildlife Habitat Incentives Program (WHIP). This is a voluntary program for people who want to develop and improve wildlife habitat primarily on private land. Through WHIP, the NRCS provides both technical assistance and up to 75 percent cost-share assistance to establish and improve fish and wildlife habitat. WHIP agreements between NRCS and the participant generally last from 5 to 10 years from the date the agreement is signed.

WHIP encourages the creation of high quality wildlife habitats that support wildlife populations of National, State, Tribal, and local significance. Through WHIP, NRCS works with private landowners and operators; conservation districts; and Federal, State, and Tribal agencies to develop wildlife habitat on their property. Most efforts have concentrated on improving upland wildlife habitat, such as native prairie, but there is an increasing emphasis on improving riparian and aquatic areas. Projects for bats could include bat houses, bat condos, bat-friendly gating, and bat-friendly water for wildlife projects. Increased awareness will also minimize the use of pesticides on farms, golf courses and water treatment plants and increase the use of bats, birds and insect species as natural pest controls.

Applications for cost-share agreements to develop wildlife habitat may be filed at any time. Participants voluntarily limit future use of the land for a period of time, but retain private ownership. NRCS works with the participant to develop a wildlife habitat development plan. This plan becomes the basis of the cost-share agreement between NRCS and the participant. NRCS provides cost-share payments to landowners under these agreements that are usually 5 to 10 years in duration, depending upon the practices to be installed.

Eligible lands under the program are privately owned land; federal land when the primary benefit is on private or Tribal land; state and local government land on a limited basis; and tribal land. On eligible land, NRCS emphasizes habitat areas for wildlife species experiencing declining or significantly reduced populations; practices beneficial to fish and wildlife that may not otherwise be funded; and wildlife and fishery habitats identified by local and state partners and Indian Tribes in each state.

<http://www.nrcs.usda.gov/programs/whip/>

NATIONAL FISH AND WILDLIFE FEDERATION

Katy Hinman gave a brief overview of the National Fish and Wildlife Federation's (NFWF) Challenge Grant Program. NFWF's grant program has recently undergone significant changes. The new program will be a match program, with the expectation that the match will be raised during the grant period. In the past matching funds had to come from a third party, but now grantees can provide their own match.

NFWF actually administers many different types of grants. However, applicants do not need to worry about determining which funding source they should apply for. Project coordinators for NFWF can match applicants with the appropriate funding source. A pre-proposal may be submitted at any time and it will be worked into the next slate of grants.

Funded projects focus on on-the-ground restoration work and often on endangered species. Most of the funds NFWF administers are federal (from the US Fish and Wildlife Service, the Bureau of Land Management, the Forest Service, the Natural Resources Conservation Service), so criteria specific to those funds or agencies may apply. As well, applicants may be asked to get letters of support from the agency that is providing the funds.

The average grant is \$35,000 with at least a 2:1 match. Match funds need to be non-federal and voluntary (no mitigation funds).

For more information, please contact:
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<http://www.nfwf.org/programs/programs.htm>

BREAKOUT GROUPS

The purpose of the breakout groups was to begin to set priorities for addressing the goals and objectives as outlined in the Arizona Bat Conservation Strategic Plan. In order to implement the plan, we need to determine specific projects and actions that can be carried out. With that in mind, the breakout groups examined the goals and objectives in their respective sections and discussed what must be done in the next few years to start the process of implementing those objectives. The projects listed in each section of the plan are given as examples and do not necessarily represent the entire scope of projects that should be considered nor even the projects that might be most important.

The goal was to lay a foundation on which we will be able to build for years and decades to come. We asked groups to consider factors such as the biological importance of the projects, the severity of the threats they address, and their feasibility.

Each group ranked the goals listed within their section according to which they felt were the most important to address over the next few years. They then identified priority actions that needed to be carried out to meet these goals and, where appropriate, delineated specific projects (including who would carry them out and where funding might be found). Projects could include on-the-ground conservation efforts as well as planning efforts. Above all, we wished to identify which projects were foundational, in other words, what has to be done in the next two years to implement the strategic plan.

BREAKOUT GROUPS

RESEARCH

Participants: Dan Taylor (facilitator), Kathleen Blair, Debbie Brewer, Debbie Buecher, Gary Helbing, Mark Howell, Michael Ingraldi, Karen Krebs, Angie McIntire, Cathi Ripley, Ronnie Sidner, Sheridan Stone

The Research group tried to identify the top research-related goals out of the ones delineated in the plan. They regarded some of the goals in the plan, however, as related more to management and administration. For instance, Goal Three (develop a centralized data repository for research and inventory data) was seen as necessary for the accomplishment of the priority goals, but not in itself a “research” priority.

RANKED GOALS

1. Develop standards and protocols to enhance research quality and minimize harm to bats (Goal Seven in strategic plan). The development of foundational methods, establishing standards and concrete techniques, and identifying technological needs was seen as instrumental to accomplishing the other goals.

2. Establish baseline populations and trends (Goal One in strategic plan). This was seen as an overall goal, but is difficult to attain. Currently measurable information relates primarily to Goal Two.

3. Identify key resource requirements and limiting factors (Goal Two in strategic plan).

TOP PRIORITY ACTIONS

Within these goals, the group ranked the priority actions listed in the strategic plan.

1. Develop standards and protocols:

Establishing standardized methods and validating techniques (a combination of priority actions 1 and 2 in the strategic plan), was seen as the most important action under this goal. There has been a lack of consistent data gathering techniques for inventory and monitoring that can lead to statistically defensible methods. Once a basic standard for appropriate and adequate data collection is developed then we need to develop research to evaluate extended techniques (field methodologies and technologies). An example of research would be first a literature search to determine what has been done and then development of modified techniques that can be tested. e.g. testing three different survey protocols for lesser-long nosed bats.

For instance, comparisons of techniques for population estimation in roosting habitat may include evaluation of ways of doing exit counts and external surveys of caves, mines, buildings and bridges, e.g. a study comparing videography, infrared, night vision, clickers, etc. for different

species, different habitats, etc. Experimental design would need to take into account selecting a location to perform the exit counts, realizing differences between permanent and ephemeral resources (caves vs. trees), etc. Comparisons of acoustic techniques would include looking at echolocation studies from the perspective of detectors used, data filters, and analysis tools.

The group decided that current priorities would be to standardize exit counts and to establish scientific design standards. They also wish to identify appropriate technologies for different studies and establish the efficacy of these technologies, including validation of technologies within multiple habitats/landscapes, validation of technologies on a multiplicity of species, and validation of technologies on a temporal scale.

Lower priority actions in Goal Seven would be establishing a bat-banding clearinghouse and establishing researcher training programs (priority actions 3 and 4 in the strategic plan).

2. Establish baseline populations and trends

Priority action 1 was covered in the discussion of Goal Seven and is the top priority. Beyond that, priorities include conducting research to better identify and define population units (priority action 3) and conducting research on movements of bats between roosts (priority action 2).

The group also wanted to identify species and geographic areas to study. They felt that federally listed species are already taken care of. The most common, widely distributed species may exhibit trends more readily, and be easier to study in different areas. Certain species may also be more sensitive to habitat disturbance, for instance species sensitive to cave/mine changes (e.g. Townsend's big-eared bats), species sensitive to tree/snag changes (e.g. red bats, long-legged myotis), and species that have large colonial roosts (e.g. Mexican free-tailed bats) that could be sensitive to contaminants and easier to establish trends

3. Identify key resource requirements and limiting factors

Identifying key resource requirements is dependent on the ability to detect and identify bat species using a resource, and estimating numbers of bats per unit time. Identifying limiting factors is dependent on ability to detect and estimate change in abundance (or index of abundance, some demographic parameter) relative to some change in resource availability. The ranking of priority actions under this goal will be continued by the group.

BREAKOUT GROUPS

INVENTORY AND MONITORING

Participants: Meg Goodman (Facilitator), Dan Adikes, Melanie Bucci, Bill Burger, Mary Darling, Frank Hensley, Larry Laing, Shawn Lowery, Susi MacVean, Curt McCasland, Henry Messing, Lin Piest, Tim Veenendaal, Richard Winstead, Erin Zylstra

RANKED GOALS

- 1. Standardize data collection and reporting methods** (related to Goal Three in strategic plan). While the originally stated goal of refining distribution maps was recognized as very important, the group felt that this could not be done with standardization of data collection and reporting.
- 2. Inventory and monitor caves, mines and other natural and artificial roosts and habitats that support, or once supported, the most important bat colonies and populations** (Goal One in strategic plan)
- 3. Monitor the effects of land management practices on bats** (Goal Two in strategic plan)
- 4. Encourage interstate and international cooperation on inventory, monitoring, and habitat assessments** (Goal Four in strategic plan)

TOP PRIORITY ACTIONS

1. Standardize data collection and reporting methods:

The initial priority should be to establish a statewide database, which should be centralized and standardized and/or compatible with other databases. This should include links between databases (for instance Arizona Game and Fish Department, the Heritage Data Management System, Bat Conservation International); historical records; acoustic, netting and roost data; surveys with negative data; data from scientific collecting permit reports; and a rating of the credibility of individual records. The database should be accessible and there should be a simple format for data to be submitted. Professional input on design should be solicited. This will be carried out by the Arizona Game and Fish Department and funded by a State Wildlife Grant, with partnerships with other land management and wildlife agencies.

Coordination between groups is essential, including AGFD, BCI, the National Park Service, cavers, land management agencies, and tribes. This will allow the database to be standardized both within the state and inter-state and inter-nationally.

The other priority actions (defining critical resource corridors, monitoring important habitats, developing guidelines for identifying key roosts, and supporting long-term monitoring of population trends) were also discussed, but it was felt that the development of a database was essential for carrying out any of these priorities.

2. Inventory and monitor caves, mines and other natural and artificial roosts and habitats that support, or once supported, the most important bat colonies and populations:

The main priority action for this goal is to develop and make available protocols that include netting, acoustic, roost monitoring, etc. These need to include all types of roosts and habitats. This should be led by the AGFD bat program with cooperation from land management agencies, researchers, and others in Arizona, and can be funded by State Wildlife Grants with assistance from other agencies, etc. (can include “non-traditional” sources such as Phoenix Zoo).

3. Monitor the effects of land management practices on bats:

The main priority identified for this goal was to address mine closure issues. The group wanted to emphasize the importance of being proactive rather than reactive and suggested conducting initial triage and ranking sites as unimportant, unknown, and important. If closure is necessary, we should attempt to close all unknown or important sites in bat friendly / compatible manner. Developing a protocol for identification of sites and for determining the appropriate closure method (given the site and the species using it) is very important.

As with the other goals, communication between agencies is essential. This action should be pursued by land management agencies in cooperation with AGFD. Funding for closures can come from Heritage Grants, the Landowner Incentive Program, Challenge cost share, public safety monies, minerals monies, etc. (perhaps the wildlife monies could just fund the bat friendly part with the public safety monies funding base closure costs).

4. Encourage interstate and international cooperation:

The major priorities for this goal are to be involved politically, to remain involved in the North American Bat Conservation Partnership and regional working groups, and to encourage information sharing between groups.

BREAKOUT GROUPS

MANAGEMENT

Participants: Bob Hall (Facilitator), Jackie Ferrier, Chad Heuser, Lyle Lewis, Sherri Lisius, Gen Masters, Addison Mohler, Bryan Morrill, Terry Myers, Thomas Parker, Joanne Roberts, Tom Skinner, Mary Jo Stegman, Bob Vahle, Stephen Williams

RANKED GOALS

The Management Breakout Group identified two main goals as priorities:

- 1. Develop standardized management strategies** (related to Goal One in the strategic plan)
- 2. Develop statewide criteria for priority roosts** (related to Goal Two in the strategic plan)

TOP PRIORITY ACTIONS

To reach these goals, they suggest the following actions:

1. Develop standardized management strategies

a. Adapt existing management guidelines, in particular from the “Species Conservation Assessment and Conservation Strategy for the Townsend’s Big-Eared Bat.” Apply these to other species where appropriate. Some of these guidelines can be developed during the Forest Plan revisions through interdisciplinary teams.

b. Research for other resources (broad base information; communication beyond your office/agency) for specific management guidelines for other species.

c. Develop mitigation guidelines for proposed actions (i.e. fire management, fuel wood harvest, livestock grazing, timber/salvage, special use permits, recreation) and for pro-active conservation actions. Establish and evaluate effectiveness of man made roosts in areas where the loss of natural roosts now limits population recovery.

The group emphasized the need for using 4 C’s (cooperation, coordination, consultation, communication) during this process.

Also within the context of Goal One, the group identified the need to address the other priority actions: standardizing database information schemes (priority action 2) and implementing standardized permits, qualifications, and protocols (priority action 3). They also emphasized the need to develop communication mechanisms and resource “web page” for projects in Arizona with a reporting mechanism, as well as to develop better communication for project information exchange.

2. Develop statewide criteria for priority roosts

Identification of important roosting areas and prioritization may vary depending on land management areas and agencies. The group felt that cave, mines and snags are equally important in terms of developing management guidelines, while manmade roosts, such as dams, bridges, and buildings, were a second priority. The use of a flagship project to draw attention to high priority roost sites was discussed.

The criteria for identifying these roosts may cover a broad range of issues, as delineated in the strategic plan. Therefore, we will need to develop a rating system for these criteria (assign values to these criteria). This should be done by a sub-group within the Arizona Bat Resource Group using interagency participation.

Once criteria have been determined, the next step is identification of priority roosts within each management unit throughout the State (priority action 1) in order to develop a roost management plan, which will include critical foraging areas. Each land owner (agency, tribal, private etc.) can submit their recommendations on priority areas and from this we can identify the top 5 priority roosts for the state from those areas identified from each management unit.

Once priority roosts are identified, a site specific roost management plan should be developed, that include incorporation of manmade roosts where feasible, identification of foraging areas, prioritization of key habitat sites, protection of drinking sites, flight and migratory corridors, and monitoring the effectiveness of management actions (priority actions 3 through 9). Whether or not a specific roost management plan is being developed, these factors should be considered for area management.

BREAKOUT GROUPS

EDUCATION

Participants: Karen Schedler (Facilitator), Danny Castro, Dan Groebner, Thom Hulen, Kerry Hunt, Stacy Pratt, Nancy Renison, Diane Winterboer

RANKED GOALS

1. Foster collaboration with specialized groups who can help (Goal Three in strategic plan). The group felt that this should run parallel with Goal One in the strategic plan: **Develop educational materials to reach important audiences.**

2. Integrate bat education materials into other successful programs and materials (Goal Two in strategic plan).

3. Focus educational efforts in critical bat conservation locations (Goal Four in strategic plan). The group felt that this was a long-term goal. They also felt that it was important to identify critical locations rather than the original wording of “most important” locations.

All of these goals, undertaken in the order identified above, should lead to **Initiate broad, statewide education campaigns, and establish linkages to exchange information and foster international collaboration** (Goal Five in strategic plan)

TOP PRIORITY ACTIONS

2003-04 Year

The group developed a matrix identifying specific actions to be undertaken in the next two years that address the ranked goals:

WHAT?	WHO?	WHEN?	FUNDING
Compiled (centralized) directory of bat information and education resources	Arizona Game and Fish Department (AGFD)	6/30/03	None anticipated
Review resources in directory: completeness, accuracy, target groups. Assemble final directory.	Arizona Bat Resource Group (ABRG) Education Committee	9/30/03	2 mtgs. \$500 (travel time, related expenses)
Directory onto website	AGFD	10/15/03	\$750 - web master (10 hours @ \$75/hr)
Promotional campaign – timed for Halloween (local media, etc.)	ABRG & interested parties	10/30/03	\$7500 (statewide)
Bat Natural History Workshops (2: SE Arizona and N Sonora, Mexico)	AGFD	8/03 and annually thereafter	\$2000 (participants pay approx. \$75 each)

WHAT?	WHO?	WHEN?	FUNDING
Watchable Wildlife Workshops (3: Phx, Tucson, Flagstaff)	To be determined	Summer 2004 and annually thereafter	\$6000 (materials and logistics)
Ad Hoc Presentations, 45-minutes (e.g.: campgrounds, Water Ranch Park., etc)	Varies	On-going	\$500 (duplication of existing materials)
Disseminate information, re: "nuisance" wildlife, bat exclusions, bat deterrence.	ABRG	10/15/03	Minimal (locate existing material for dissemination)
Revise bat trunks	AGFD	10/30/03	\$5000 (est: 10 trunks @ \$500 ea)
Develop materials for information "gaps" identified (e.g., "The value of bats", similar to "The value of birds" brochure)	To be determined	1/01/04	\$1000 (estimated)
Bilingual translations of pertinent materials	AGFD	6/30/04 (ongoing project)	\$5000 (100 hours @ \$50/hour)
Cultural resources & translations (similar to Dine guide)	AGFD & others	6/30/05	\$5000 (estimated)
Patch "program"	AGFD	12/30/04	\$2000 (4000 patches @ 50 cents/each)
Backyard Habitat (Conservation): adapt materials to complement video program	AACD	12/30/03	\$1000 (estimated)
The Wildlife Minute (30- and 60-second 'infomercials')	AGFD	4/08/03	None anticipated
Theater Promotions (pre-show slides)	AGFD	9/30/03	\$2500 (estimated)
Study Guide for Formal Education (based upon JAGCT study guide?)	ABRG Education Committee	6/30/05	\$7500 (includes bilingual translations)
Intra-Agency ops: Brown Bags, etc	All	On-going	None

POTENTIAL PARTNERS IN BAT EDUCATION

Mining industry
 Agriculture (IPM)
 Caving groups
 Timber / logging industry
 Public health agencies
 Ranching groups
 Arizona Office of Tourism
 Naturalist groups
 Tucson Audubon
 Arizona Audubon Council
 The Nature Conservancy

City governments
 Chambers of Commerce
 AZ Dept of Transportation
 County highway depts
 AZ Fed of Garden Clubs
 Wildlife Services
 The Phoenix Zoo
 Reid Park Zoo
 AZ Sonora Desert Museum
 Window Rock Zoo

Desert Botanical Garden
 Tucson Botanical Garden
 Tohono Chul
 Flagstaff Arboretum
 Water Ranch Park
 Discovery Park
 Wildlife rehabilitators
 Arizona State Parks
 Natural Resources
 Conservation Districts
 Coop. Extension Service